

applying a magnetic field to draw down the precipitate of the nucleic acid and ^{the} ~~the~~ ^{associated} ~~associated~~ beads and to form a first supernatant liquid,

I1
HS
separating the precipitate ^{and the} ~~and the~~ beads from [a] the first supernatant liquid,

adding a liquid to the precipitate ^{and the} ~~and the~~ beads to re-dissolve the nucleic acid and re-suspend the beads,

applying a magnetic field to draw down the beads and to form a second supernatant liquid, and

separating from the beads [a] the second supernatant liquid [which is the] as said product solution containing the nucleic acid.

I2
HC
24. (Amended) A method of making a product solution containing low molecular weight nucleic acid by treating a starting bacterial lysate containing low molecular weight nucleic acid by the use of suspended magnetically attractable beads which do not specifically bind the nucleic acid, comprising the steps of:

forming in the bacterial lysate a first precipitate selected from the group consisting of cell debris, protein and chromosomal DNA, in the presence of [the] first suspended magnetically attractable beads, which first precipitate becomes non-specifically associated with the first beads,

applying a magnetic field to draw down the first precipitate and the associated first beads and to form a supernatant starting solution containing the low molecular weight nucleic acid,

recovering [a] the starting solution containing

weight nucleic acid precipitate becomes non-specifically associated with the second beads,

applying a magnetic field to draw down the low molecular weight nucleic acid precipitate and the associated second beads and to form a first supernatant liquid,

separating the low molecular weight nucleic acid precipitate and the second beads from [a] the first supernatant liquid,

adding a liquid to the low molecular weight nucleic acid precipitate to re-dissolve the nucleic acid and re-suspend the second beads,

applying a magnetic field to draw down the second beads, and

separating from the second beads a second supernatant liquid [which is the] as said product solution containing the low molecular weight nucleic acid.

25. A method of making a nucleic-acid-containing liquid by treating a solution containing protein and nucleic acid by the use of magnetically attractable beads which do not specifically bind the nucleic acid, comprising the steps of:

forming in the solution a first precipitate comprising protein and nucleic acid in the presence of the suspended magnetically attractable beads which first precipitate becomes non-specifically associated with the beads,

applying a magnetic field to draw down the beads and the associated first precipitate and to form a first supernatant liquid,

separating the first precipitate and beads from

applying a magnetic field to draw down a second precipitate of the nucleic acid and the associated beads and to form a second supernatant liquid containing the protein,

separating [a] the second supernatant liquid containing the protein from the second precipitate and beads, adding a second liquid to the second precipitate to re-dissolve the nucleic acid and re-suspend the beads,

applying a magnetic field to draw down the beads and to form a third supernatant liquid containing the nucleic acid, and

separating from the beads the [desired] third supernatant nucleic-acid-containing liquid.

26. (Amended) A method for recovering nucleic acid from a starting solution of bacteriophage, by the use of magnetically attractable beads which do not specifically bind [the] said bacteriophage, which method comprises the steps:

precipitating [the] said bacteriophage out of the starting solution in the presence of [the] first suspended magnetically attractable beads whereby the bacteriophage becomes [non-specifically associated with] the beads;

applying a magnetic field to draw down [a] the precipitate of the bacteriophage and the [associated] beads and to form a first supernatant;

separating the bacteriophage precipitate from the first supernatant;

re-suspending and lysing [the] said bacteriophage to form a lysate solution comprising protein and nucleic acid;

precipitating out of the lysate solution the